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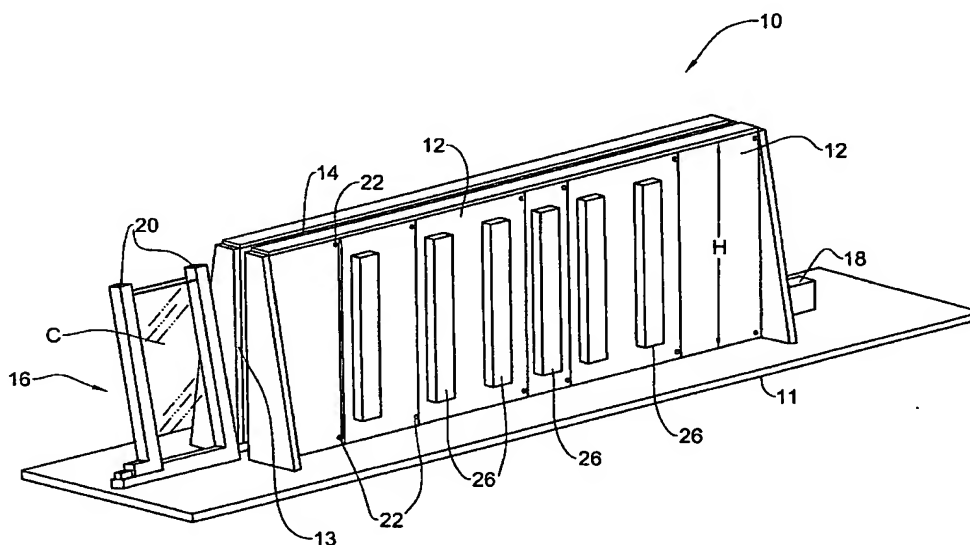
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(54) Title: **DEVICE FOR DIRECTIONAL COOLING OF BIOLOGICAL MATTER**



(57) **Abstract:** The present invention provides an apparatus for freezing a biological sample in a container while it moves along a longitudinal axis of the apparatus. The apparatus comprises at least one set of two cooling plates with inner surfaces having a first plate dimension perpendicular to the axis, and a second plate dimension parallel to the axis. The inner surfaces define a passage therebetween whose width corresponds to the container thickness and which is no larger than the first plate dimension. The first plate dimension is at least as large as the level of the biological sample along the first container dimension during use. The apparatus further comprises a motion unit adapted for movement of the container through the passage along the axis so as to allow cooling of the sample by conduction from the inner surfaces of the plates.



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